PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: ALDO NOTO
DORSEY & WHITNEY
1330 CONNECTICUT AVENUE, N.W.
SUITE 200
WASHINGTON, D.C. 20036

PCT

WRITTEN OPINION

(PCT Rule 66)

Date of Mailing *(day/month/year)*	16NOV1995
Applicant's or agent's file reference	**REPLY DUE** within TWO months from the above date of mailing

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US94/13808	02 DECEMBER 1994	02 DECEMBER 1993

International Patent Classification (IPC) or both national classification and IPC
IPC(6): H04N 7/173, 7/16 and US Cl. 348/6, 8, 10, 12, 13; 455/ 3.1, 4.2, 5.1, 6.1:

Applicant
DISCOVERY COMMUNICATIONS, INC.

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I [X] Basis of the opinion
- II [ ] Priority
- III [ ] Non-establishment of opinion with regard to novelty, inventive step or industrial applicability
- IV [X] Lack of unity of invention
- V [X] Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
- VI [ ] Certain documents cited
- VII [ ] Certain defects in the international application
- VIII [ ] Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request the Authority to grant an extension., see Rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3.
For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bis*.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 02 APRIL 1996

Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer CHRISTOPHER GRANT
Facsimile No. (703) 305-3230	Telephone No. (703) 305-4755

Form PCT/IPEA/408 (cover sheet) (January 1994)*

WRITTEN OPINION

International application No.
PCT/US94/13808

I. Basis of the opinion

1. This opinion has been drawn on the basis of *(Substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".)*:

[X] the international application as originally filed.

[X] the description, pages 1-38 , as originally filed.
pages NONE , filed with the demand.
pages NONE , filed with the letter of _____.

[X] the claims, Nos. 1-70 , as originally filed.
Nos. NONE , as amended under Article 19.
Nos. NONE , filed with the demand.
Nos. NONE , filed with the letter of _____.

[X] the drawings, sheets/~~fig~~ 1-30 , as originally filed.
sheets/~~fig~~ NONE , filed with the demand.
sheets/~~fig~~ NONE , filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

[X] the description, pages NONE

[X] the claims, Nos. NONE

[X] the drawings, sheets/~~fig~~ NONE

3. [ ] This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the ~~Supplemental Box~~ Additional observations below (Rule 70.2(c)).

4. Additional observations, if necessary:
NONE

WRITTEN OPINION

International application No.
PCT/US94/13808

IV. Lack of unity of invention

1. In response to the invitation (Form PCT/IPEA/405) to restrict or pay additional fees the applicant has:

- [ ] restricted the claims. (See Supplemental Sheet)
- [X] paid additional fees.
- [ ] paid additional fees under protest.
- [ ] neither restricted nor paid additional fees.

2. This Authority found that the requirement of unity of invention is not complied with for the following reasons and chose, according to Rule 68.1 not to invite the applicant to restrict or pay additional fees:

3. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this opinion:

- [X] all parts.
- [ ] the parts relating to claims Nos. _.

WRITTEN OPINION

International application No.
PCT/US94/13808

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims	(Please See supplemental sheet)	YES
	Claims	(Please See supplemental sheet)	NO
Inventive Step (IS)	Claims	(Please See supplemental sheet)	YES
	Claims	(Please See supplemental sheet)	NO
Industrial Applicability (IA)	Claims	(Please See supplemental sheet)	YES
	Claims	(Please See supplemental sheet)	NO

2. CITATIONS AND EXPLANATIONS

Claims 1, 3-7, 9, 16, 17 and 25-28 lack novelty under PCT Article 33(2) as being anticipated by the patent to Poignet et al. (Poignet).

Considering claim 1, Poignet discloses all the claimed subject matter in figures 1 and 2. Note that 1) the claimed producing means is met by data processing circuit (3) and control sets 4.1; 2) the claimed means for transmitting is met by modulator (1) and antenna (2); 3) the claimed means for receiving is met by reception circuit (10); and 4) the claimed means for selecting is met by separator (15), first selection circuit (16), circuit (j) and selector (17).

As for claim 3, the means for choosing and extracting is met by data separator (15) and first selection circuit (16) respectively.

Claim 4 is met by data separator (15) and selector (17), see col. 4, lines 8-30.

Claim 5 is met by CRT (13).

Claim 6 is met by character generator (20).

Claim 9 is met by modulator (1).

Claim 16 is met by modulator (1) and antenna (2) producing a video signal to be received by a standard television receiver. Note col. 2, lines 35-58.

Claim 17 is met by data packs in channels discussed in col. 2, lines 35-43.

Regarding claim 25, note the steps of coding, transmitting, receiving, and selecting are all met by the functions performed by circuits (3, 4.1), modulator (1) and antenna (2), reception circuit (10) and selection circuits (16, 17).

Claim 26 is met by separator (15), see col. col. 4, lines 8-30.

Claim 27 is met by selector and decoder (17).

Claim 28 is met by memory (18) and CRT (13).

Claims 1, 5, 7, 16, 17 and 25 lack novelty under PCT Article 33(2) as being anticipated by the patent to Kauffman et al. (Kauffman).

Considering claim 1, Kauffman discloses all the claimed subject matter in figures 1 and 2. Note that 1) the claimed producing means is met by catv services (10), communication modem (Continued on Supplemental Sheet.)

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

IV. LACK OF UNITY OF INVENTION:

1. This response is made to a telephone Lack of Unity requirement (see telephone memorandum attached hereto or attached to a prior Written Opinion).

V. 1. REASONED STATEMENTS:
The opinion as to Novelty was positive (YES) with respect to claims 2, 8,10-15,18,20-24,29-70 .
The opinion as to Novelty was negative (NO) with respect to claims 1,3-7,9,16,17,19,25-28.
The opinion as to Inventive Step was positive (YES) with respect to claims 10-15,18,29-33,35-36,39-70 .
The opinion as to Inventive Step was negative (NO) with respect to claims 1-9,16-17,19-28,34,37,38 .
The opinion as to Industrial Applicability was positive (YES) with respect to claims 1-70 .
The opinion as to Industrial Applicability was negative (NO) with respect to claims NONE .

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):
(30) and adder (12); 2) the claimed means for transmitting is met by cable distribution media (14); 3) the claimed means for receiving is met by data receiver (54), see col. 5, lines 15-18; and 4) the claimed means for selecting is met by selector (50), see col. 6, lines 14-35.

Claim 5 is met by tv receiver (20).

Claim 7 is met by set top terminal (18) of figure 1 and ram (60) of figure 2. See col. 5, lines 43-47.

Claim 16 is met by the transmitting system of figure 1 (see col. 3, lines 20-24).

Claim 17 is met by message information transmitted on separate data carriers or embedded in the video signal disclosed in col. 6, lines 31-36.

The limitations set forth in claim 25 have been discussed above regarding claim 1.

Claims 1, 16, 19 and 25 lack novelty under PCT Article 33(2) as being anticipated by the patent to Kimura.

Considering claim 1, Kimura discloses all the claimed subject matter in figures 3 and 11. Note that 1) the claimed producing means is met by circuits (14, 15, 16, 20, 21); 2) the claimed means for transmitting is met by mixer (22); 3) the claimed means for receiving is met by tuner (121); and 4) the claimed means for selecting is met by channel selector (150), display gate (190) and switch (190').

Claim 16 is met by Kimura in col. 4, lines 55-58.

Claim 19 is met by digital data in line 21 of the vertical blanking interval (VBI) of the video signal and channel selector (150) (VBI decoder). See col. 12, lines 19-27 and col. 1, lines 52-54.

The limitations set forth in claim 25 have been discussed above regarding claim 1.

Claims 2 and 24 lack an inventive step under PCT Article 33(3) as being obvious over Poignet and Morii et al. (Morii).

Considering claim 2, Poignet discloses all the claimed subject matter above, except for the means for extracting all of the textual data and means connected to the extracting means for choosing a portion of extracted data as recited in the claim.

However, Morii discloses a teletext receiver comprising a receiver (3) (fig. 1) for extracting all the textual data from a composite signal and storing it in ram (4). Keypad (10) is used to select desired pages (choosing a portion) from the many text or graphic data received by receiver (3). See col. 1, lines 30-33, col. 1, line 66 - col. 2, line 2 and col. 3, lines 3-7. Further, the means for extracting and choosing are notoriously well known in teletext receivers.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Poignet's system to include a means for extracting all of the textual data and a means connected to the extracting means for choosing a portion of the extracted data, as taught by Morii, for the advantage of selecting desired portions, such as one or two pages, from a large set of received text pages or graphics information.

As for claim 24, Poignet fails to disclose a means for producing a composite signal for providing a graphical data as recited in the claim.

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

However, Morii discloses receiving a composite signal comprising a graphical data produced at a central facility. See col. 1, lines 5-46. Graphical data are usually transmitted to aid in enhancing the display of information, such as for the display of games etc.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Poignet's system to include a means for producing a composite signal which includes graphical data, as taught by Morii, for the advantage of enhancing the display of information transmitted from a central facility.

Claim 8 lacks an inventive step under PCT Article 33(3) as being obvious over Poignet and Washizuka.

Considering claim 8, Poignet discloses all the claimed subject matter above, except for the portable hand-held viewer as recited in the claim.

However, it is well known that portable hand held television receivers (viewers) are routinely used in the art for the advantage of viewers to have an easily carried receiver to watch video images and text information . One such receiver is disclosed by Washizuka in figure 1.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Poignet's system to include the portable hand-held viewer, as taught by Washizuka, for the advantage of the viewer to have an easily carried receiver to watch video images and text information.

Claims 20-21 lack an inventive step under PCT Article 33(3) as being obvious over Poignet and Bradley et al. (Bradley).

Considering claim 20, Poignet discloses all the claimed subject matter above, except for the modem connected to the selecting means for enabling bidirectional communication between the selection means and remote locations as recited in the claim.

However, Bradley discloses a modem (10) (fig. 2) connected to a selecting means (set top terminal (29) with remote control (28)) for enabling bidirectional communication between the selecting means and a billing computer (8) at a remote location in order to obtain authorization and to process billing information.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Poignet's system to include a modem connected to the selecting means for enabling bidirectional communication between the selection means and remote locations, as taught by Bradley, for the advantage of exchanging information between remote sites.

Claim 21 is met by billing computer (8) discussed above.

Claims 22-23 lack an inventive step under PCT Article 33(3) as being obvious over Poignet.

Considering claim 22, Poignet discloses all the claimed subject matter above, except for the bidirectional cable system as recited in the claim.

However, it is well known in the art to utilize a bidirectional cable medium for ordering pay-per-view selections from a text menu. This well known technique used in CATV systems wherein request for a video program involves an upstream signal and the requested video program is transmitted on a downstream signal.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Poignet's system to include a bidirectional cable system because it is a well known feature used in the art for the advantage of transmitting a request for a video program and for receiving the requested video program.

As for claim 23, it would have been obvious to one of ordinary skill in the art to modify Poignet's system to include a billing system and transmit information about a selected portion of text because text menus are routinely used in the art for ordering pay-per-view programs.

Claims 34 and 37 lack an inventive step under PCT Article 33(2) as being anticipated by the patent to Seth Smith.

Considering claim 34, note that the claimed data receiver, formatter, security means, and uplink are met by teletext message assembly (12), signal assembly (14), encryption (16) and uplink antenna (18) (figure 1) respectively.

As for claim 37, note that an encoder is an inherent device in the uplink of signals to a satellite.

Claim 38 lacks an inventive step under PCT Article 33(3) as being obvious over Seth-Smith.

Considering claim 38, it would have been obvious to modify Seth-Smith's system to include a billing and collection system because it is a routine system found in all CATV systems for the advantage of authorizing and billing subscriber transactions appropriately.

Claims 10-15,18,29,30-33,35-36 and 38-70 meet the criteria set forth in PCT Articles 33(2-4).

NEW CITATIONS

US, A, 4,361,848 (Poignet et al.) 30 NOVEMBER 1982
see figures 1-2

US, A, 3,891,792 (Kimura) 24 JUNE 1975

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

see figures 3, 11

US, A, 5,260,778 (Kauffman et al.) 09 NOVEMBER 1993
see figures 1-2

US, A, 4,639,225 (Washizuka) 27 JANUARY 1987
see figure 1.

US, A, 5,036,394 (Morii et al.) 30 JULY 1991
see col. 1, lines 5-46.

US, A, 5, 172,413(Bradley et al.) 15 DECEMBER 1992
see figure 2.

GB, A, 1,204,190 (unknown) 22 DECEMBER 1967
see page 1.

US, A, 4,829,569 (Seth-Smith et al.) 09 MAY 1989
see figure 1.

US, A, 5,283,639(Esch et al.) 01 FEBRUARY 1994see figures 1-4

US, A, 5,216,515(Steele et al.) 01 JUNE 1993
see figure 1.

US, A, 4,949,187 (Cohen) 14 AUGUST 1990
see abstract, figures 1-4

US, A, 5,132,789 (Ammon et al.) 21 JULY 1992
see abstract.

US, A, 5,133,079 (Ballantyne et al.) 21 JULY 1992
see figures 1A-1B.